

REMARKS

This Amendment is responsive to the final office action of April 29, 2010, (hereinafter "Office Action").¹ Applicant, unintentionally, did not timely respond to the Office Action and the application went abandoned. This Amendment is filed as the submission under an RCE filed herewith, along with an accompanying Petition to Revive.

Claims 1-18 and 36-38 were presented for examination as Group I claims elected with traverse in response to a previously issued restriction requirement made against claims 1-44. Accordingly, claims 19-35 and 39-44 were previously canceled. Claims 1-18 and 36-38 are currently rejected. Claims 1, 17, 18 and 36 are currently amended; support for the amendment can be found in the specification as filed, for example, at least in paragraphs [0022] and [0031]. New claim 45 is added. Support for the new claim can be found throughout the application as filed including, for example, at least original claim 1 and paragraph [0022]. No new matter is added by way of this amendment. Claims 1, 17, 18, 36 and 45 are independent claims. Claims 1-18, 36-38 and 45 are pending.

Claims 1-5, 8-9, 11-18 and 36-38 are rejected under 35 U.S.C. §102(a) as being anticipated by Millar (U.S. 6,831,901, hereinafter "Millar"). Claims 6 and 7 are rejected under 35 U.S.C. §103(a) as being un-patentable over Millar in view of Stephens (provisional application #60/371,994 filed April 12, 2002 from which U.S. Patent No. 6,934,077 issued;

¹ The Office Action may contain a number of statements characterizing the cited references and/or the claims which Applicant may not expressly identify herein. Regardless of whether or not any such statement is identified herein, Applicant does not automatically subscribe to, or acquiesce in, any such statement. Further, silence with regard to rejection of a dependent claim, when such claim depends, directly or indirectly, from an independent claim which Applicant deems allowable for reasons provided herein, is not acquiescence to such rejection of that dependent claim, but is recognition by Applicant that such previously lodged rejection is moot based on remarks and/or amendments presented herein relative to that independent claim.

hereinafter “Stephens”). Claim 10 is rejected under 35 U.S.C. §103(a) as being un-patentable over Millar. Applicant respectfully traverses these rejections.

1. *un-digitized analog signals output from a human-user device operated and controlled by a human user*

Applicant shows below that signals which are output from Millar’s base transceiver stations (BTS’s) to Millar’s HUB 130 are digitized radio frequency (RF) signals. Furthermore, Applicant submits that Millar’s base transceiver stations (BTS’s) cannot be reasonably interpreted as user devices, and certainly not as human-user devices operated and controlled by a human user. Consider, for example, claim 1.

Claim 1 is rejected under section 102(e) as allegedly anticipated by Millar. Currently amended claim 1 recites, *inter alia*: “the interface unit being configured to: receive one or more *un-digitized* analog signals output from a *human-user device* of the plurality of human-user devices via a port of the plurality of ports, said *human-user device operated and controlled by a human user*.” Millar does not disclose or suggest at least this limitation of claim 1 at least because (a) it teaches a *digitized* RF signal and (b) its choice of BTS for a user device *precludes* its being a human-user device which is operated and controlled by a human user.

(a) *un-digitized analog signals*

With respect to the previous version of claim 1, the Examiner states:

“Regarding claims 1, 17 and 18, Millar discloses a patch panel system comprising an interface unit, or Hub item 130 of figure 3, that includes a plurality of ports, or ports connecting 120-1 ... 120-n to Hub item 130 of figure 3, configured to connect to a plurality of user devices, or plurality of BTS item 120-n of figure 3...” (Office Action, pg 2, emphasis added)

Thus, the Examiner reads Millar's HUB 130 as allegedly being equivalent to Applicant's recited interface unit prior to the current amendment and reads Millar's base transceiver stations BTS 120-1...120-n as allegedly being equivalent to Applicant's recited plurality of user devices prior to the current amendment. Millar states the following:

"Typically, each base station is coupled to hub 130 via one or more coaxial cables carrying digitized RF (Radio Frequency) signals." (Millar, col. 6, lines 63-65; emphasis added)

"In this way, a digitized RF signal received at hub 130 can be reproduced at a target access node 150, making it appear as though the original RF signal generated by a base station is seamlessly connected to a corresponding remote antenna device.

One notable advantage of the present invention is to enable a base station 'farm,' i.e., multiple base stations located at a common location, to transmit encoded digitized data signals to remotely located antennas." (Millar, col. 7, lines 29-39; emphasis added)

Thus, it is clear that only digitized RF signals² are output from Millar's base transceiver stations 120 on cables 122 to HUB 130. Accordingly, Millar does not anticipate Applicant's claim 1 because it does not disclose or suggest: "the interface unit being configured to: receive one or more *un-digitized* analog signals output from a human-user device..." as recited in claim 1 (emphasis added).

With respect to support for the claim amendment by which "un-digitized" has been added to claim 1, Applicant refers first to its specification, paragraph [0031] wherein it states:

"Transmit portion 210 [of interface unit 120] may receive one or more signals (e.g., one or more analog signals) from a user device 110, digitize the signal(s) to obtain bit representations, and store the bit representations in a memory." Thus, the transmit portion 210 of interface unit 120 receives one or more analog signals from user device 110 and the clear sense of this sentence in

² One example of a digitized RF signal is that which is produced by amplitude shift keying (ASK) where the analog carrier wave is controlled to have peak amplitudes corresponding to either one of two magnitudes, peak amplitudes corresponding to one of the two magnitudes representing binary "1" and other peak amplitudes corresponding to the other of the two magnitudes representing binary "0."

the context of Applicant's disclosure is that transmit portion 210 then digitizes those signals to form bits. Accordingly, those analog signals received by transmit portion 210 of interface unit 120 are necessarily un-digitized to enable, or require, transmit portion 210 to digitize them to obtain bits. MPEP 2163(I)(B) says: "While there is no in haec verba requirement, newly added claim limitations must be supported in the specification through express, implicit, or inherent disclosure." Thus, there is no verbatim requirement in terms of finding support for added words to a claim, and this claim amendment is clearly supported.

MPEP § 2131 states that to anticipate a claim, the reference must teach every element of the claim. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ...claim." See *Richardson v. Suzuki Motor Co.*, 868 F. 2d 1226, 1236, 9USPQ2d 1913, 1920 (Fed. Cir. 1989). Clearly, in this instance, each and every element as set forth in claim 1 is not found, expressly or inherently, in Millar for reasons given above. And, the identical invention is not shown in Millar in as complete detail as is contained in claim 1 for reasons given above.

Accordingly, the 35 U.S.C. §102(a) rejection of claim 1 should be withdrawn and the claim allowed.

(b) human user device

In addition, Millar does not disclose or suggest "...analog signals output from a *human-user device* of the plurality of human-user devices via a port of the plurality of ports, said *human-user device operated and controlled by a human user*" as recited in currently amended claim 1. (emphasis added) As noted above, the Office Action interprets Millar's BTS stations 120 as the

equivalent of Applicant's previously-recited user devices. As Applicant contended in its February 15, 2010 response, this is an unreasonable interpretation of user devices of the previous version of claim 1. Moreover, with respect to the current version of claim 1, Applicant submits that maintaining such an interpretation would be a clear error. For example, Millar says:

However, in the present embodiment, instead of being coupled to an antenna device location on a base station tower, the RE [RF] signals of base stations 120 are fed (or received) to hub 130 for processing." (Millar, col. 7, lines 9-12)

Millar thus teaches that its BTS base stations are those which typically are coupled to base station towers for wireless transmission purposes. These cellular towers may be the kind which are visible while driving in a car along the Interstate highway system in the U.S.A. and can be co-located with their respective base stations. Clearly, this kind of facility, a remotely-located base station, with or without a companion transmission tower, operated or controlled by a telecommunications company, is not in any way equivalent to the now-recited human-user device such as a telephone, teletypewriter, fax machine, etc., as expressed in the specification, paragraph [0022], each such device being operated and controlled by a human user. Accordingly, Millar does not anticipate Applicant's claim 1 because it does not disclose or suggest: "the interface unit being configured to: receive one or more un-digitized analog signals output from a human-user device of the plurality of human user devices via a port of the plurality of ports, said human user device operated and controlled by a human user" as recited in claim 1.

With respect to support for the claim amendment by which "human user" has been added to claim 1, Applicant refers first to its specification, at least paragraph [0022] wherein it states: "User device 110 may include an analog or digital communication device, such as a telephone, a teletypewriter, a facsimile machine..." These are examples of devices that are operated and

controlled by a human user. MPEP 2163(I)(B) says: "While there is no in haec verba requirement, newly added claim limitations must be supported in the specification through express, implicit, or inherent disclosure." Thus, there is no verbatim requirement in terms of finding support for added words to a claim, and this claim amendment is clearly supported.

MPEP § 2131 states that to anticipate a claim, the reference must teach every element of the claim. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ...claim." See *Richardson v. Suzuki Motor Co.*, 868 F. 2d 1226, 1236, 9USPQ2d 1913, 1920 (Fed. Cir. 1989). Clearly, in this instance, each and every element as set forth in claim 1 is not found, expressly or inherently, in Millar because Millar's BTS is not a human user device. And, the identical invention is not shown in Millar in as complete detail as is contained in claim 1 for reasons given above.

Accordingly, the 35 U.S.C. §102(a) rejection of claim 1 should be withdrawn and the claim allowed.

Claims 2-16, dependent from claim 1, are allowable at least for reasons based on their respective dependencies from an allowable base claim.

2. radio signal representing only extracted payload bits

Applicant believes that this argument is valid and persuasive, and re-submits it for reconsideration. Namely, Millar teaches the transmitting of other than only extracted payload bits from its antennae - it teaches the transmitting of a packet, both header and payload bits. By definition, a packetized signal means that such signal necessarily has both header and a payload

while a depacketized signal means that the header has been stripped away and only the payload remains as the depacketized signal. Applicant does not understand the Examiner's argument on page 10 of the Office Action. Millar cannot wirelessly transmit only bare payload bits to its mobile transceiver device(s); it must transmit a signal that includes a destination address (telephone number) which is equivalent to a header; thus it cannot transmit "only extracted payload bits" because they are not extracted.

Claim 1 further recites: "a radio unit configured to:transmit the depacketized radio signal representing only extracted payload bits over a radio channel." (emphasis added) Applicant discloses the broadcasting of a radio signal over a radio channel. Accordingly, anyone who is tuned to that radio channel can receive that radio signal. Clearly, multiple parties can tune-in to the same radio channel, e.g., as is plainly observed in connection with ordinary commercial radio broadcasts. Thus, there is no need for additional destination bits to direct the transmission of Applicant's depacketized radio signal to a particular destination.

But, quite differently, in typical cellular telephone usage, as discussed in Millar (*see* Fig. 2 and col. 8, lines 18-33), where only one destination party may be intended to receive the transmission (the party corresponding to the "dialed" phone number), additional bits accompanying the payload bits become a necessity to identify the proper destination for the duration of the cell phone call. Notably, according to Millar, those additional bits accompanying the payload bits are included in the digitized RF signal output by BTS 120-1 onto cable 122-1 and received by HUB 130. This is clear from the following:

As previously discussed, the original RF signal received from a corresponding base station 120 can be reproduced for driving an antenna device 160 at a radio access node 150. (Millar, col. 15, lines 48-51; emphasis added)

This section says that the original RF signal output by, e.g., BTS 120-1 onto cable 122-1 connected to HUB 130 can be reproduced to drive an antenna. Thus, that signal includes sufficient information such that, if it had been output directly to an antenna instead of to coax cables leading to HUB 130, it would have been properly transmitted by that antenna to a cellular telephone. That original RF signal did not need to be manipulated by functionality of HUB 130 and RAN 150 to achieve a cellular transmission format.

Therefore, the original digitized RF signal on coaxial cable 122-1 necessarily included more than mere payload information. Payload information, by itself, does not include any destination information or other overhead information which is needed for cellular transmission. Clearly, a cellular transmission signal that is intended for a particular recipient must include that recipient's destination information (e.g., information corresponding to the recipient's telephone number), and that destination information establishes that signal as something other than a radio signal representing only extracted payload bits.

Accordingly, Millar does not disclose or suggest: "a radio unit configured to....convert the packet to a depacketized radio signal representing only extracted payload bits and transmit the depacketized radio signal representing only extracted payload bits over a radio channel" as recited in claim 1. Millar wirelessly transmits a signal from its antennae comprised of more than only extracted payload bits.

As noted above, MPEP § 2131 states that to anticipate a claim, the reference must teach every element of the claim. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the

...claim.” See *Richardson v. Suzuki Motor Co.*, 868 F. 2d 1226, 1236, 9USPQ2d 1913, 1920 (Fed. Cir. 1989). Clearly, in this additional instance, each and every element as set forth in claim 1 is not found, expressly or inherently, in Millar for reasons given above. And, the identical invention is not shown in Millar in as complete detail as is contained in claim 1 for reasons given above.

Accordingly, for this additional reason, the 35 U.S.C. §102(a) rejection of claim 1 should be withdrawn and the claim allowed.

As noted above, claims 2-16, dependent from claim 1, are allowable at least for reasons based on their respective dependencies from an allowable base claim.

The other reference, Stephens, does not cure this deficiency of Millar. Stephens is not cited in the rejection of claim 1 anyway.

Independent claims 17, 18 and 36 each contain limitations that are the same as, or are similar to, those discussed above for claim 1. Accordingly, independent claims 17, 18 and 36 are allowable for reasons that are the same as, or similar to, those given above for claim 1.

Dependent claims 37 and 38, dependent from claim 36, are also allowable, at least for reasons based on their dependency from an allowable base claim.

New claim 45 recites specific human user devices in accordance with the Examiner’s suggestion on page 10 of the Office Action and is allowable at least for reasons that are the same as, or similar to, relevant reasons given above with respect to allowability of claim 1.

CONCLUSION

Reconsideration and allowance are respectfully requested based on the above amendments and remarks.³ A petition to revive and an RCE accompanies the filing of this amendment and remarks.

If there are any remaining issues or if the Examiner believes that a telephone conversation with Applicant's attorney would be helpful in expediting the prosecution of this application, the Examiner is invited to call the undersigned at 508-625-1323.

To the extent necessary, a petition for extension of time under 37 C.F.R. § 1.136 is hereby made, the fee for which should be charged to deposit account number 07-2347. Please charge any other fees due, or credit any overpayment made to that account.

Respectfully submitted,

Date: **December 20, 2010**

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³ As Applicant's remarks with respect to the Examiner's rejections are sufficient to overcome these rejections, Applicant's silence as to assertions by the Examiner in the Office Action or certain requirements that may be applicable to such rejections (e.g., whether a reference constitutes prior art, motivation to combine references, assertions as to dependent claims, Official Notice, etc.) is not a concession by Applicant that such assertions are accurate or such requirements have been met, and Applicant reserves the right to analyze and dispute such assertions/requirements in the future.